Polysomnographic Technologist

Polysomnographic technologists perform sleep tests and work with physicians to provide information needed for the diagnosis of sleep disorders. The technologist monitors brain waves, eye movements, muscle activity, multiple breathing variables, and blood oxygen levels during sleep using specialized recording equipment. The technologist interprets the recording as it happens and responds appropriately to emergencies. Technologists provide support services related to the treatment of sleep-related problems, including helping patients use devices for the treatment of breathing problems during sleep and helping individuals develop good sleep habits.

Career Description

The technologist gathers and analyzes patient information and physician orders to ensure that the appropriate test is performed. Technologists explain the sleep study procedures to the patient. Before a sleep study, technologists prepare and calibrate equipment required for testing and make adjustments if necessary. They apply electrodes and sensors according to accepted published standards; perform appropriate calibrations to ensure proper signals and make adjustments if necessary; and perform positive airway pressure (PAP) mask fitting. PAP consists of a machine (air pump) that is connected to a mask worn over the patient's nose by a hose; the machine gently pushes the air into the patient's nose and down the airway to prevent it from collapsing during sleep, as in the case of sleep apnea.

There are several types of tests, including the Multiple Sleep Latency Test (MSLT, measures daytime sleepiness), Maintenance of Wakefulness Test (MWT, measures ability to stay awake), parasomnia studies (eg, unusual behaviors during sleep), and oxygen and PAP titration (eg, adjusting the air pressure of the PAP machine to find the right pressure that will keep the airway from collapsing). The polysomnographic technologist follows these protocols to ensure appropriate data collection. Technologists follow "lights out" procedures to obtain baseline values. They then perform data collection while keeping track of study quality and making any necessary adjustments. The technologist keeps a log of observations, including sleep stages and clinical events, changes in procedure, and significant events. This helps in the interpretation of polysomnographic results.

During the sleep study the technologist must ensure patient safety, apply PAP at the correct pressure level when appropriate, and administer oxygen as directed. At the end of the study the technologist follows "lights on" procedures to ensure that data have been collected correctly. Polysomnographic technologists must be comfortable working with newborn, child, teenage, adult, and geriatric patients.

After the sleep study the technologist scores sleep/wake stages using professionally accepted guidelines; scores clinical events (such as respiratory events, cardiac events, limb movements, arousals, etc) according to center-specific protocols; and generates accurate reports by tabulating sleep/wake and clinical event data.

All polysomnographic technologists must comply with laws, regulations, guidelines, and standards regarding safety and infection control issues. They perform routine and complex equipment care and maintenance and evaluate sleep study-related equipment and inventory. Current CPR (cardiopulmonary resuscitation) or BCLS (basic cardiac life support) certification is required.

Employment Characteristics

Most polysomnographic technologists work in sleep disorders centers. Sleep disorders centers may be located within or affiliated with a hospital, or may be "freestanding" (in a physician's office or professional building). Some senior technologists may spend all or part of their time scoring sleep recordings, performing daytime tests, and managing a center, but most of the polysomnographic technologists' work is done at night. Typical shifts are three to four 10- to 12-hour shifts per week. The recommended workload is two patients per night. Salaries and benefits are competitive with other allied health professions.

Educational Programs

Length. A 2-year program leading to an associate's degree is preferred. However, some programs provide a certificate after a year of training.

Curriculum. The curriculum of an accredited program focuses on correct performance of polysomnographic procedures and patient safety. Students learn principles of physiological monitoring and the pathophysiology of sleep disorders. Through lecture and observation they gain experience with study protocols.

Inquiries

Careers

Christopher Waring, Coordinator
Association of Polysomnographic Technologists
One Westbrook Corporate Center, Suite 920
Westchester, IL 60154
708 492-0796
708 273-9344 Fax
E-mail: cwaring@aptweb.org

Certification

Cathi Eifert, CAE, Executive Director
Board of Registered Polysomnographic Technologists (BRPT)
8201 Greensboro Drive, Suite 300
McLean, VA 22102
703 610-9020
703 610-9005 Fax
E-mail: brpt@amg-inc.com

Program Accreditation

Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with:
Committee on Accreditation of Polysomnographic Technologist Education
Richard S Rosenberg, PhD, Coordinator
One Westbrook Corporate Center, Suite 920
Westchester, IL 60154
708 492-0930
708 492-0943 Fax
E-mail: rrosenberg@aasmnet.org